

Appl. No. 10/034,639
Amdt. Dated July 20, 2005
Reply to Office Action of April 29, 2005

Attorney Docket No. 81752.0118
Customer No.: 26021

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented): A method of processing characters, comprising the steps of:

setting, as a text matrix, a matrix which is capable of having elements of M by L characters which are arbitrary at the maximum, where M represents a number of characters which can be arranged in an X direction as one of a row direction and a column direction in said matrix and is defined as an integer equal to or larger than 1 and L represents a number of characters which can be arranged in a Y direction as another of said row direction and said column direction and is defined as an integer equal to or larger than 2;

storing text data representative of each character contained in said text matrix in a manner correlated with a position of said character in said text matrix;

setting, as a display matrix, a partial matrix corresponding to a portion of said text matrix and capable of having elements of N by J characters at the maximum, where N represents a number of characters which can be arranged in said X direction and is defined as an integer satisfying the relationship of $1 \leq N \leq M$ and J represents a number of characters which can be arranged in said Y direction and is defined as an integer satisfying the relationship of $1 \leq J < L$;

displaying an image of each character contained in said display matrix in a manner correlated with a position of said character in said display matrix, based on said text data of said character;

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setting, as a k-th candidate processing matrix, an arbitrary k-th one, where $k = 1, 2, 3, \dots$ or L , of L partial matrices of said text matrix arranged in said Y direction as first to L-th candidate processing matrices each of which is capable of having one character in said Y direction and M characters at the maximum in said X direction; and

selecting one of said L candidate processing matrices as a processing matrix, and then determining characters contained in said processing matrix as processing characters.

2. (Original): A method according to claim 1, further comprising the step of shifting a position of said display matrix in said text matrix.

3. (Original): A method according to claim 1, wherein said processing matrix is selected from J candidate processing matrices of said L candidate processing matrices, each of said J candidate processing matrices, each of said J candidate processing matrices having at least part thereof overlapping said display matrix.

4. (Original): A method according to claim 3, wherein said processing matrix is in a predetermined position in sequence of said J candidate processing matrices.

5. (Original): A method according to claim 1, further comprising the step of editing said text data of said processing characters by addition, deletion or modification.

6. (Original): A method according to claim 1, wherein said characters in said text matrix include characters forming at least one character string.

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said k-th candidate processing matrix has one or more character strings arranged in said X direction.

7. (Original): A method according to claim 6, wherein said characters in said text matrix include at least one attribute character accompanying said characters forming said at least one character string, said at least one attribute character indicating at least one of an attribute of each character string and an attribute of said characters forming said each character string.

8. (Original): A method according to claim 7, wherein said attribute character includes a position information character indicative of at least one of a line number, a paragraph number and a document number of said at least one character string.

9. (Original): A method according to claim 6, wherein the step of storing text data includes the step of storing format information of each character string to be laid out.

10. (Original): A method according to claim 1, further comprising the step of printing at least part of an image of said processing characters on a print medium, based on said text data of said processing characters.

11. (Original): A method according to claim 10, wherein said print medium is a tape.

12. (Previously Presented): A character processing apparatus for processing characters, comprising: text matrix-setting means for setting, as a text matrix, a matrix which is capable of having elements of M by L characters which are arbitrary at the maximum, where M represents a number of characters which

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can be arranged in an X direction as one of a row direction and a column direction in said matrix and is defined as an integer equal to or larger than 1 and L represents a number of characters which can be arranged in a Y direction as another of said row direction and said column direction and is defined as an integer equal to or larger than 2;

text data-storing means for storing text data representative of each character contained in said text matrix in a manner correlated with a position of said character in said text matrix;

display matrix-setting means for setting, as a display matrix, a partial matrix corresponding to a portion of said text matrix and capable of having elements of N by J characters at the maximum, where N represents a number of characters which can be arranged in said X direction and is defined as an integer satisfying the relationship of $1 \leq N \leq M$ and J represents a number of characters which can be arranged in said Y direction and is defined as an integer satisfying the relationship of $1 \leq J < L$;

display means for displaying an image of each character contained in said display matrix in a manner correlated with a position of said character in said display matrix, based on said text data of said character;

candidate processing matrix-setting means for setting, as a k-th candidate processing matrix, an arbitrary k-th one, where $k = 1, 2, 3, \dots$ or L, of L partial matrices of said text matrix arranged in said Y direction as first to L-th candidate processing matrices each of which is capable of having one character in said Y direction and M characters at the maximum in said X direction; and

processing object-selecting means for selecting one of said L candidate processing matrices as a processing matrix, and then determining characters contained in said processing matrix as processing characters.

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13. (Original): A character processing apparatus according to claim 12, further comprising display matrix-shifting means for shifting a position of said display matrix in said text matrix.

14. (Original): A character processing apparatus according to claim 12, wherein said processing matrix is selected from J candidate processing matrices of said L candidate processing matrices, each of said J candidate processing matrices having at least part thereof overlapping said display matrix.

15. (Original): A character processing apparatus according to claim 14, wherein said processing matrix is in a predetermined position in sequence of said J candidate processing matrices.

16. (Original): A character processing apparatus according to claim 12, further comprising edit means for editing said text data of said processing characters by addition, deletion or modification.

17. (Original): A character processing apparatus according to claim 12, wherein said characters in said text matrix include characters forming at least one character string, said k-th candidate processing matrix has one or more character strings arranged in said X direction.

18. (Original): A character processing apparatus according to claim 17, wherein said characters in said text matrix include at least one attribute character accompanying said characters forming said at least one character string, said at least one attribute character indicating at least one of an attribute of each character string and an attribute of said characters forming said each character string.

19. (Original): A character processing apparatus according to claim 18, wherein said attribute character includes a position information character indicative of at least

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one of a line number, a paragraph number and a document number of said at least one character string.

20. (Original): A character processing apparatus according to claim 17, wherein said text data-storing means includes means for storing format information of each character string to be laid out.

21. (Original): A character processing apparatus according to claim 12, further comprising printing means for printing at least part of an image of said processing characters on a print medium, based on said text data of said processing characters.

22. (Original): A character processing apparatus according to claim 21, wherein said print medium is a tape.

23. (Previously Presented): A computer-readable storage medium storing a program for causing a computer to execute a method of processing characters, the program comprising:

a module for setting, as a text matrix, a matrix which is capable of having elements of M by L characters which are arbitrary at the maximum, where M represents a number of characters which can be arranged in an X direction as one of a row direction and a column direction in said matrix and is defined as an integer equal to or larger than 1 and L represents a number of characters which can be arranged in a Y direction as another of said row direction and said column direction and is defined as an integer equal to or larger than 2;

a module for storing text data representative of each character contained in said text matrix in a manner correlated with a position of said character in said text matrix;

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a module for setting, as a display matrix, a partial matrix corresponding to a portion of said text matrix and capable of having elements of N by J characters at the maximum, where N represents a number of characters which can be arranged in said X direction and is defined as an integer satisfying the relationship of $1 \leq N \leq M$ and J represents a number of characters which can be arranged in said Y direction and is defined as an integer satisfying the relationship of $1 \leq J < L$;

a module for displaying an image of each character contained in said display matrix in a manner correlated with a position of said character in said display matrix, based on said text data of said character;

a module for setting, as a k-th candidate processing matrix, an arbitrary k-th one, where $k = 1, 2, 3, \dots$ or L, of L partial matrices of said text matrix arranged in said Y direction as first to L-th candidate processing matrices each of which is capable of having one character in said Y direction and M characters at the maximum in said X direction; and

a module for selecting one of said L candidate processing matrices as a processing matrix, and then determining characters contained in said processing matrix as processing characters.